AMENDMENTS TO THE CLAIMS

Cancel claim 8 without prejudice; and

Rewrite claims 17 and 32 as follows:

1.-2. (Canceled)

3. (Previously Presented) The demineralization fluid treatment system of claim 24, wherein the orientation of the at least one orifice is such that a flow of fluid from the orifice into the cavity is directed toward a bottom portion of the screen.

4.-5. (Canceled)

6. (Previously Presented) The demineralization fluid treatment system of claim 24, wherein the screen is generally cylindrical, the nozzle further comprising an end cap mounted to a bottom of the screen.

7. (Previously Presented) The demineralization fluid treatment system of claim 24, wherein the screen is generally cylindrical, the nozzle further comprising an end cap mounted to a bottom of the screen, wherein the restrictor further comprises an end wall mounted to an end thereof, the end wall being spaced from the end cap.

8.-9. (Canceled)

10. (Previously Presented) The demineralization fluid treatment system of claim 32, wherein the auxiliary restrictor includes a tube positioned within the interior cavity, and said at least one orifice being disposed in a wall of said tube.

11. (Previously Presented) The demineralization fluid treatment system of claim 10, wherein the auxiliary restrictor further includes a check valve mounted upstream of the tube to permit one-way flow away from the auxiliary orifice.

12-16. (Canceled)

17. (Currently Amended) A process for demineralizing a process fluid comprising the steps of:

providing a vessel having an inner chamber containing an ion exchange demineralizing processing medium through which fluid can pass;

introducing a process fluid into the chamber;

providing a manifold including a plurality of nozzles suspended in said demineralizing medium in communication with an outlet, each of the nozzles including an outer screen defining an interior cavity, the screen having a plurality of screen openings having a collective screen opening area, a duct, and an elongated hollow flow restrictor having a longitudinal axis and being disposed in said interior cavity, said hollow flow restrictor having at least one orifice providing fluid communication between the duct and the interior cavity, said at least one orifice being disposed at an angle other than perpendicular to said longitudinal axis and having a collective orifice area less than the screen opening area; and

drawing process fluid through the at least one orifice of said restrictor during processing for creating a pressure differential across said at least one restrictor orifice such that a distinct directional flow of said fluid is caused through said at least one orifice and in said ~~internal~~ interior cavity.

18. (Original) The process according to claim 17 further comprising:

ceasing the introducing of process fluid;

introducing a reconditioning fluid into the medium; and

withdrawing the reconditioning fluid into the nozzle through the screen openings so that the fluid flows across the interior cavity, through the at least one orifice and into the duct.

19. (Original) The process according to claim 17, further comprising:

providing the nozzle with an auxiliary duct and an auxiliary restrictor having at least one auxiliary orifice with a total orifice area less than the screen opening area, the orifice providing fluid communication between the auxiliary duct and the interior cavity;

ceasing the introducing of process fluid;

introducing a reconditioning fluid into the medium; and

withdrawing the reconditioning fluid into the nozzle through the screen openings so that the fluid flows across the interior cavity, through the at least one auxiliary orifice and into the auxiliary duct.

20.-21. (Canceled)

22. (Previously Presented) The process according to claim 17, further comprising the step of forcing liquid outwardly through the screen openings to clean the openings.

23. (Canceled)

24. (Previously Presented) A demineralization fluid treatment system comprising:

a vessel, a granular ion exchange demineralizing processing medium located in at least a lower portion of the vessel;

a first manifold for introducing fluid into the vessel; and

a second manifold for withdrawing fluid from the medium, said second manifold including a fluid exit duct, and a plurality of nozzles suspended in the demineralizing medium, said nozzles each being in communication with the fluid exit duct, said nozzles each having an external screen defining an interior cavity, said screen having a plurality of screen openings immersed in said demineralizing processing medium defining a collective exterior open area communicating with said interior cavity, a flow restrictor in the form of a hollow conduit within said interior cavity, said flow restrictor having at least one orifice formed in a wall thereof at an angle non-perpendicular to a longitudinal axis of the conduit for permitting communication of fluid between said interior cavity and said duct, and said at least one orifice collectively having a total orifice area less than the collective open area of said screen such that during operation of the treatment system the fluid flow rate through the nozzle is controlled by said restrictor and a pressure differential created across the at least one orifice is sufficient for generating a directional fluid flow in said internal cavity and through the at least one orifice.

25. (Previously Presented) The demineralization fluid treatment system of claim 24 in which said nozzles are suspended in closely spaced relation to a bottom of said vessel.

26. (Previously Presented) The demineralization fluid treatment system of claim 24 in which said flow restrictor is in the form of a tube.

27. (Previously Presented) The demineralization fluid treatment system of claim 24 in which said flow restrictor has a cylindrical wall.

28. (Previously Presented) The demineralization fluid treatment system of claim 27 in which said flow restrictor is concentrically mounted within said screen.

29. (Canceled)

30. (Previously Presented) The demineralization fluid treatment system of claim 27 in which said flow restrictor includes a plurality of said orifices circumferentially about the wall thereof.

31. (Canceled)

32. (Currently Amended) A demineralization fluid treatment system comprising:

a vessel, a granular ion exchange demineralizing processing medium located in at least a lower portion of the vessel;

a first manifold for introducing fluid into the vessel;

a second manifold for withdrawing fluid from the medium, said second manifold including a fluid exit duct, and a plurality of nozzles suspended in the demineralizing medium, said nozzles each being in communication with the fluid exit duct, said nozzles each having an external screen defining an interior cavity, said screen having a plurality of screen openings immersed in said demineralizing processing medium defining a collective exterior open area communicating with said interior cavity, a flow restrictor in the form of a hollow conduit within said interior cavity, said flow restrictor having at least one orifice formed in a

wall thereof for permitting communication of fluid between said interior cavity, and said duct, and said at least one orifice collectively having a total orifice area less than the collective open area of said screen such that during operation of the treatment system the fluid flow rate through the nozzle is controlled by said restrictor and a pressure differential created across the at least one orifice is sufficient for generating a directional fluid flow in said ~~internal~~ interior cavity and through the at least one orifice, each of said nozzles further including an auxiliary duct, an auxiliary restrictor having at least one auxiliary orifice providing communication between the auxiliary duct and the interior cavity, and said vessel further including an auxiliary manifold in communication with said auxiliary duct.